



**PATIENT**

Finn Hartmann

**SPECIES**

Canine

**BREED**

West Highland White  
Terrier

**SEX**

Neutered Male

**AGE**

2011

**WEIGHT**

19

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP (Canine  
/ Feline Practice)

**IMAGING  
PERFORMED BY**

Rebekah Jakum, CVT,  
ARDMS/RVT

**HOSPITAL NAME**

Aloha Animal Hospital

**REFERRING VET**

Dr. JD Freese

**INVOICE**

15667

**DATE**

05/01/26

**PRESENTING CLINICAL SIGNS**

Lethargy, decreased appetite, PD, diarrhea, potbellied appearance, 3/6 left systolic heart murmur, vomiting

Medication: metronidazole, maropitant, Vetmedin 1.25 BID, Apoquel, carprofen

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic change were noted.

The area of the aortic trifurcation was free of pathology.

The area of the residual prostate appeared normal and free of pathology.

Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. Mild medullary mineral was present bilaterally. The left kidney measured 4.0 cm in length. The right kidney measured 4.1 cm in length.

**Adrenal Glands**

Bilateral symmetrical adrenal gland borderline to mild enlargement with uniformly hypoechoic parenchyma was present. The left adrenal gland measured 0.63 cm width at the caudal pole. The right adrenal gland measured 0.56 cm width at the caudal pole.

**Spleen**

The spleen presented non-enlarged with mild asymmetrical medial capsule contour and mild nonhomogenous hypoechoic splenic parenchyma. Normal vascularity was evident without evidence of mass or nodules.

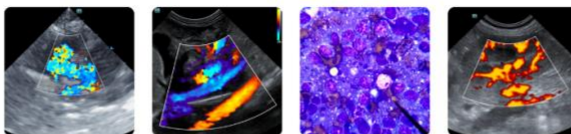
**Liver & Gallbladder**

The liver revealed mild hepatomegaly with rounded capsule contour and mild nonhomogenous hypoechoic parenchyma compared to the spleen. Mild increased to indistinct prominence of the intrahepatic hyperechoic portal vascular borders. Distinct masses or nodules were not evident. The hepatic and portal vasculature were normal in appearance without signs of congestion. Focal to intermittent discrete hyperechoic intraparenchymal nodule to nodules were present with an example measuring 0.72 cm in diameter.

The gallbladder was non distended in size with mild nonorganized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.



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The small intestine presented intact wall layering with mild subjective altered wall layer ratio owing to propensity for prominent intestinal mucosa layer. Mild segmental hyperechoic duodenojejunal mucosal speckling. The duodenum wall measured 0.58 cm wall width. The jejunum wall measured 0.38 cm wall width.

Normal visible colon wall layers were present with semi formed to soft fecal matter, consistent with patient's history.

**Pancreas**

The right limb of the pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation.

**Free Abdomen**

No obvious visualized significant or swollen mesenteric lymphadenopathy was present. Minor peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

- Enlarged hypoechoic liver with discrete hyperechoic nodules.
- Mild nonorganized gallbladder debris (non-mucocele).
- Mild nonhomogenous hypoechoic spleen.
- Borderline/mild bilateral adrenomegaly.
- Mild pancreatic inflammation versus edema.
- Gastroenteropathy exhibiting subtle intestinal mucosal speckling, soft fecal matter in colon.
- Chronic renal changes exhibiting mild medullary mineral.
- Minor peritoneal effusion.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given hypoalbuminemia combined with gastrointestinal signs and subtle intestinal mucosal speckling, nonspecific protein losing enteropathy is suspected, however concern for potential multicentric neoplasia is indicated.

Further assessment may include (assuming normal clotting status and using a 25-gauge needle) screening hepatosplenic FNA cytology and GI panel to include PLI, TLI, cobalamin and folate. No overt evidence of hepatic congestion as a contributing factor to the mild peritoneal effusion. Correlation with echocardiogram is recommended. Adrenal screening could be considered to assess for or rule out adrenal disease.

Part or all of this protocol may be considered based on your clinical impression of the patient:

**OBJECTIVE: keep albumin levels > 2 g/dl, avoid thromboembolism and cavitory effusions, monitor concurrent PLN and liver disease:**

**Plasma** 10 mL / kilogram IV over 4 hours

Or **Human albumin** 2 ml/kg/h over 10 hours. Total daily volume 20.l/kg/day

**And Colloids/Hetastarch**

10 to 20 mL per kilogram per day and dogs

10 to 15 mL per kilogram per day cats

(Can bolus first 1/3 of dose over 15 minutes)

& maintain on LRS maintenance otherwise.



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**High colony count probiotic Proviabile or Visbiome**

**Famotidine 1 mg/kg Iv Im po dc Sid /bid**

**Sucralfate 0.5-1 g po tid dogs, 0.5 g bid cats in slurry Or Misoprostol 1-5 ug/kg po tid**

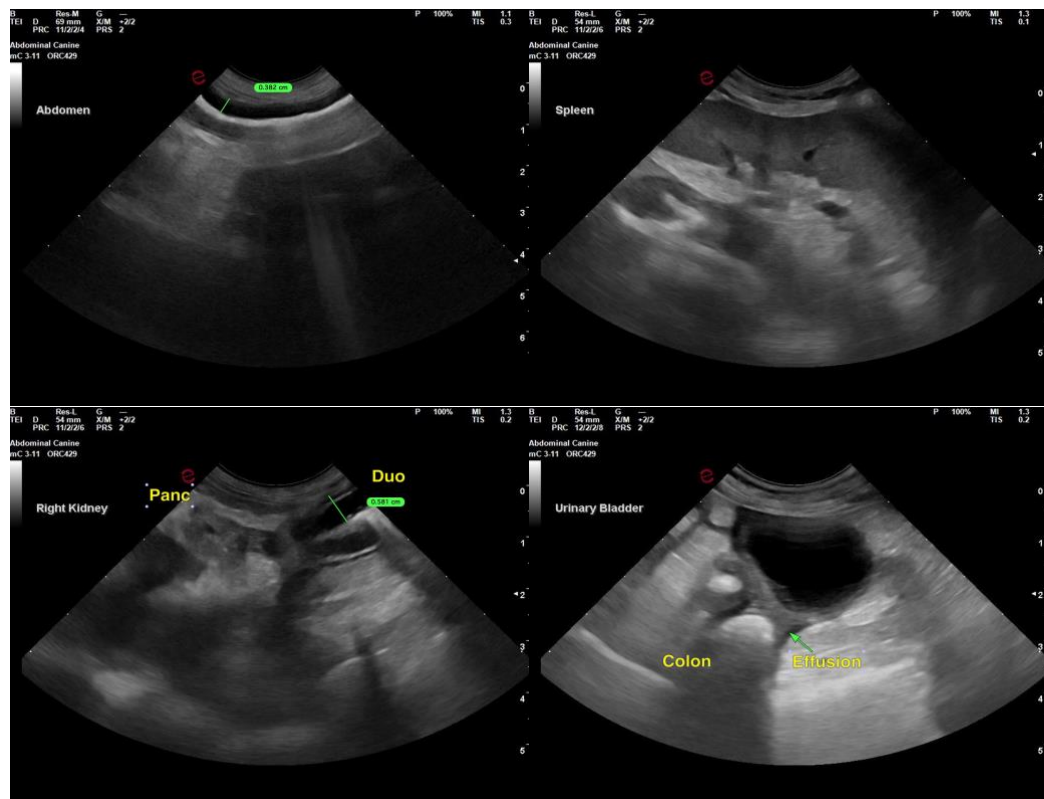
**Diet:** Highly digestible high quality protein, low fiber, low fat diet (< 15% of dry matter). Hydrolyzed protein or novel protein. Purina HA or Royal Canine HP or similar.

**Prednisone** or prednisolone 2 mg/kg bid x 3-5 days then 2 mg/kg sid. **Chlorambucil** in refractive severe IBD/alimentary lymphoma cases (monitor cbc for rare bone marrow suppression) 4 mg/m<sup>2</sup>Q 24-48 hours.

**Cobalamin (B12)** 250-1500 ug/dog weekly x 6 weeks.

**Calcium** supplementation if necessary.

**Aspirin 0.5-1 mg/kg/day or Clopidogrel (Plavix) 1-5 mg/kg/day.**





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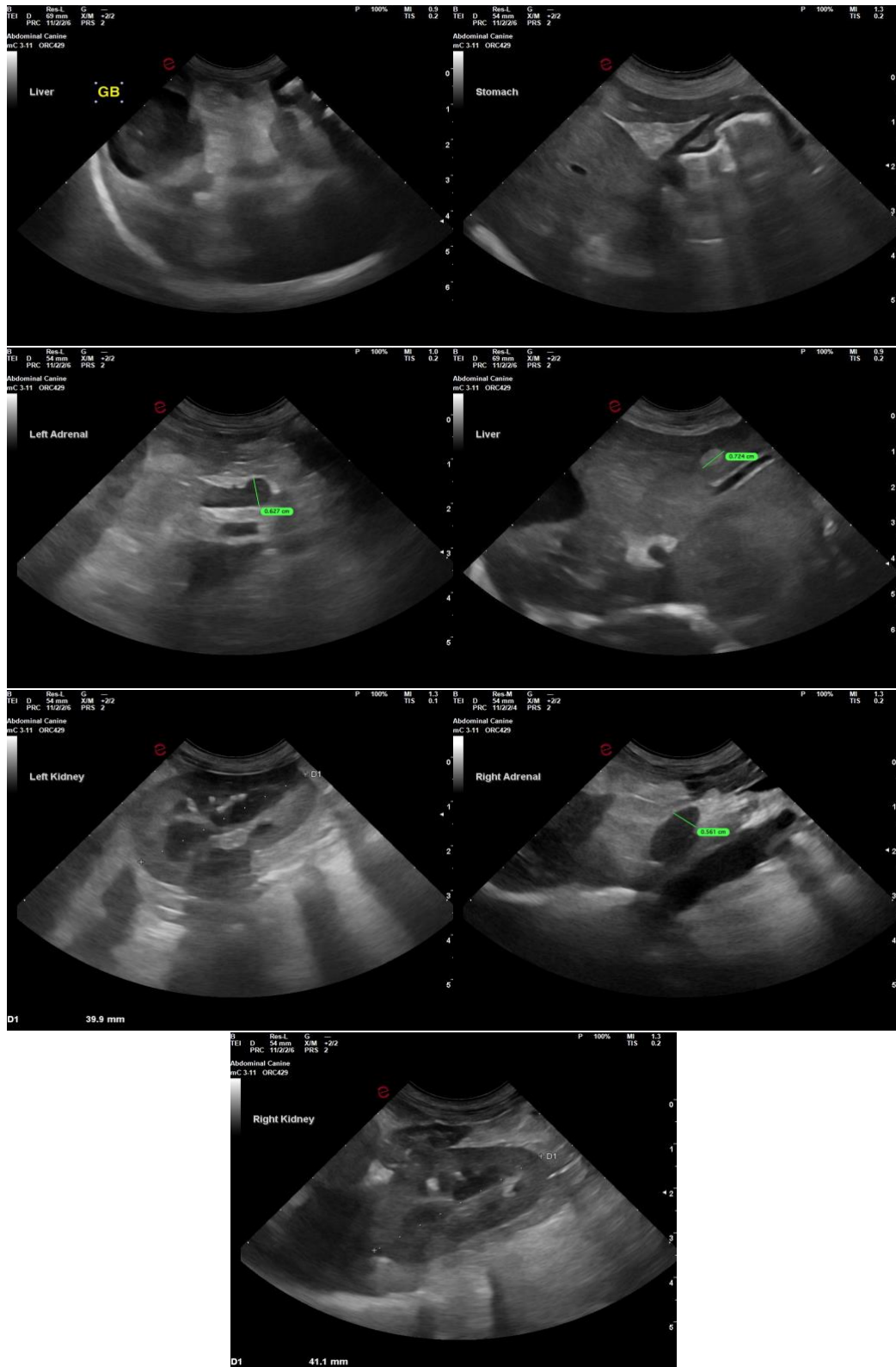
Dr. JD Freese

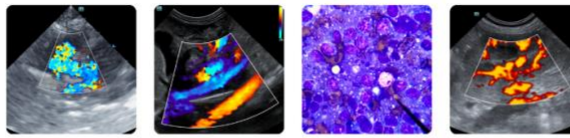
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

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